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Comment Text :
--> Attached are my comments regarding the U.S. Department of Energy's (DOE) draft Repository Supplemental Environmental Impact Statement (SEIS) and draft Nevada Rail Corridor/Alignment Environmental Impact Statement. I make several comments, based in large part on my experience and learning as a member of the National Academy of Sciences Committee on the Transportation of Radioactive Waste. Of course, these comments are mine, and do not represent the views of that committee.

1 Analysis of socioeconomic impacts is inadequate.
The report provides analysis of socioeconomic impacts from the proposed railway corridors and alignments. This analysis focuses on potential impacts related to local populations, housing, employment, changes in demand for services, gross regional products, etc. While some uncertainties exist in the estimation of impacts, these sorts of variables are probably the easiest to estimate - if assumptions are made about how people will perceive risks associated with SNF transportation to Yucca Mountain and how people will react to mishaps, incidents, and accidents associated with transportation to Yucca Mtn. or operations at Yucca Mtn.

These assumptions remain unaddressed in the DEIS and SEIS.

The National Academy of Sciences Committee on Transportation of Radioactive Waste report raises concerns about these issues (Chapter 3, Section 2). DOE considered the most simple to measure direct socioeconomic impacts. They did

not consider more difficult to measure direct socioeconomic impacts or the likelihood and effects of perception-based impacts, inspite of their importance. For example, even small accidents (no radiological release) may affect perceived and real property values. Re-occurring problems may exacerbate such effects. While the NAS Committee (and DOE in prior reports) suggest that these are hard to measure, the DEIS and SEIS are incomplete without analysis of socioeconomic impacts arising from responses to multiple mishaps and accidents involving whether or not there is a radiological release.

Further to this point, DOE should complete a more thorough analysis of the potential negative socioeconomic impacts along all road, rail, and waterway routes across the continental United States that would be used to ship wastes to Yucca. As discussed in the NAS report of the Committee on Transportation of Radioactive Waste there is ample evidence to suggest that these can be both real and significant. Even re-occurring accidents involving the transportation of empty canisters to waste sites should be considered, as these would have the potential for raising public concerns and indirect socioeconomic impacts along the transportation routes. The current lack of good empirical data to estimate these effects does not absolve DOE of further efforts to study them.

DOE should also assess socioeconomic impacts to areas in California that are nearby the proposed repository and that lay along transportation corridors that could be used (especially if there are delays in the construction of a rail spur).

2 Proposal to use TAD canisters is insufficiently justified.
Clearly, there can be benefits gained from loading wastes into a container that can support interim storage, transportation, and disposal without constantly having to handle the wastes. Loading and unloading has been previously identified as potential weak link in the transportation system (e.g., NAS Committee on Transportation of Radioactive Wastes). However, this approach is untested and DOE should further assess how the TAD system will interface with existing dry cask storage systems at reactor sites, as well as analyze its costs at reactor sites. Proposals for their use now re-opens many questions relating to a) the health, safety, security, and environmental risks from on-site storage of SNF at points of generation, b) risks associated with loading damaged SNF rods, and c) unloading from dry casks and reloading into TAD canisters at sites that have already moved SNF into dry cask storage. Already reactor sites have moved or are planning to move SNF into dry cask storage. This has happened nearby where I live (Yankee Rowe). What problems and risks may arise from reloading into TADs?

DOE should ensure that TAD canisters are fully tested for failure at all phases of the transportation system, including loading, transportation, unloading, and placement in the repository. Full scale testing should be done for higher risk situations. DOE should, furthermore, articulate a strategy for ensuring high quality control and assurance during the manufacture and maintenance of such a large number of canisters that are to be built over a relatively short time frame. Challenges of ramping up the transportation system, including supplying of newly developed components (i.e., canisters) should not be underestimated. The functioning of the entire transportation system rests on the capacity for these to be supplied. Finally, the final SEIS should provide analysis of alternative methods for situations in which the TAD system is not possible.

3 DOE does not take into account possibility of the need for additional shipments to Yucca Mtn.
It is likely that a second repository, as required, will not be sited or built in a timely manner. DOE should analyze possible effects from the increased

transport risks and number of shipments along the proposed corridors from its proposal to nearly double the amount of waste to be buried at Yucca to 130,000 metric tons.

4 DOE appears to be proposing an interim storage site in Nevada. The "aging pads" at Yucca Mountain sound a lot like an monitored retrievable storage or interim storage facility, which the Nuclear Waste Policy Act, as amended, prohibits in Nevada. Why doesn't the DOE adopt the approach suggested by the NAS Committee on Transportation of Radioactive Waste to negotiate with the utilities to ship the oldest wastes first, thus removing the need for 'aging pads" at the site of the repository?

5 Inadequate consideration of risks from radiological exposures. The National Academy of Sciences and others continue to argue that any dose of radiation carries a risk. More recent evidence, as discussed in the BEIR VII study, suggests that risks at low doses are disproportionately high and significantly higher than previously reported. To more honestly assess the likely risks from exposures - even low ones - to vulnerable populations DOE should stop using models based on "Standard or Reference Man" and instead base estimates on "Standard or Reference Pregnant Woman."

6 DOE should extend the public comment period by 60 additional days. Finally, the comment period is too short, given the volume and complexity of the materials contained in these DEIS and SEIS. In addition, the comment period was over the very busy holiday season. More time is needed for thoughtful and meaningful comments.

Sincerely,

Seth Tuler
Senior Researcher
